

BIRDS OF THE GOOSE ISLAND GROUP, SPENCER GULF

by D. C. PATON

HABITAT AND OTHER FAUNA

Goose and Wardang Islands lie in Spencer Gulf, close to the west coast of Yorke Peninsula, and about seven miles west of Pt. Victoria. The northern part of Wardang Island is now grassland, heavily infested with rabbits. A permanent water hole has been provided for the fauna on the island. Goose Island lies about three quarters of a mile to the north of Wardang, and at low tide it is possible to wade across the reef which separates the two islands, and Little Goose Island is a further fifty yards north-east from Goose. The name "Goose" was presumably given because Cape Barren Geese once occupied the islands.

Goose Island is a limestone plateau which attains a height of about fifty feet, and has an estimated area of eight acres. Twenty-foot cliffs face to the south and to the east, while semi-submerged granite boulders act as barriers between the sea and limestone on the north and west sides. There are two small beaches, one facing north and the other to the southeast, and these consist of white

coarse sand, as do the beaches along Wardang Island. The vegetation of both Goose and Little Goose Islands is predominantly African boxthorn (*Lycium ferocissimum*). Many of the bushes are ten feet in diameter and eight feet high. It is believed that goats were kept on the island at least fifty years ago. The goats ate the native flora, leaving the occasional boxthorn bush till last. This gave the boxthorn bushes the run of the island. Except for the Nitre bushes (*Nitraria schoberi*), the rest of these two islands is covered with various species of native grasses and succulents. The size of Little Goose Island is about two acres.

Goose Island, Little Goose Island, White Rocks and the surrounding reefs are now all flora and fauna sanctuaries and are leased by Scotch College as a means of stimulating an interest in biology and conservation.

At present, as required by the terms of the lease, members of the school are slowly clearing the boxthorn and replanting with coastal saltbushes (*Atriplex sp.*) and other natives. From the observations made so far,

the apparently harsh boxthorn habitat is still preferred by birds such as honeyeaters and silveryeyes, offering not only protection but also a supply of food-nectar and pollen in the spring, with berries in summer and autumn.

The purpose of this paper is to give a list of the terrestrial flora and fauna now present on the island and to provide a basis for comparison with any subsequent changes that may occur.

Goose, Little Goose and Wardang Islands have all had the natural vegetation destroyed, but Mungary Island, to the north-east of the group and close to the shore still has what is believed to be the original vegetation (i.e. that existing before the arrival of white man) of these islands. Mungary has a thick covering of small native bushes, the majority of which are less than one metre high. In April 1970, Dr. H.J. Eichler of the State Herbarium spent two days collecting specimens of plants from all these islands and has compiled a list of the flora (see Table).

I have been visiting the islands as a member of Scotch College for the last five years and, with the help of other interested boys and staff, have compiled the bird list for the area given in the annotated list. Three distinct habitats are offered to the passerine population of the area. The most productive of them is the boxthorn scrub of Goose and Little Goose Islands where some protection is offered to the birds. Wardang Island with its grasslands is ideal for pipits, quail and plover. No birds were seen on Mungary Island where the native flora is dominant. This island is connected to the mainland at low water. The sandy shoals and reefs between the islands are uncovered at low tide and are frequented by waders in the summer months.

In addition to the birds of the Goose Island group other fauna have been seen. Bull Hair Seals and a few cows (*Arctocephalus cinereus*), sometimes up to seventeen though usually about ten, occupy White Rocks for most of the year. About 1966-67 there was also a small white seal which could often be seen on the rocks on the south side of Goose Island. Wardang Island is infested with rabbits; and all the islands have occasional infestations of House or Field Mice. Mr. M. Waterman reported seeing a

jumping mouse when banding cormorants on Little Goose Island. Of the reptiles, a small dark brown snake, about one metre in length, was seen on Goose Island and another on Wardang Island in January 1970, and a four foot skin was found on Goose Island in December 1971. On Mungary, many shedded skins, apparently from Brown Snakes (*Demansia textilis*) were seen. Three species of butterflies have been identified—the Wood White (*Delias aganippe*), the Cabbage White (*Pieris rapae*), and the Australian Admiral (*Pyrameis itea*), but no serious work has been carried out on the insects of the islands yet.

One of the main attractions of the islands are the vast numbers of sea creatures, particularly the reef- and deep-sea fish in close proximity to the island. Amongst the rocks of the reefs are many species of shell-fish and other marine invertebrates. With so much to offer, and by the same token, so much to lose as well, it is pleasing to see that these waters are now protected, having recently, at the request of Scotch College, been proclaimed an Underwater Reserve to a distance of 200m. from the shore line.

BIRDS: COMPARISON WITH OTHER ISLAND GROUPS

The bird population of these islands can be compared with those of three other South Australian off-shore island groups: the Investigator Group (Eckert 1970), South Neptune Island (Stirling *et al* 1970), and Franklin and Eyre Islands (Eckert 1971). The Goose Island Group is much closer to shore and in the more protected waters of Spencer Gulf; hence land birds presumably occupy the islands by choice rather than by chance. The other groups are all some distance from the mainland, and so one might expect a difference in their bird populations.

The sea bird populations are much the same for all the islands. Species of herons, oystercatchers, plovers, terns, gulls, albatrosses, petrels and shearwaters have been reported at all groups. On the other hand, the Little Pied Cormorant, (*Phalacrocorax melanoleucos*), has not been sighted at the three isolated groups but has been recorded occasionally at Goose Island. Cape Barren Geese (*Cereopsis novaehollandiae*) have been recorded at the other three groups but

not at Goose Island, although it is said that it used to be found there.

Since the waders are known to be migratory, they have not been included in this discussion.

White-breasted Sea Eagles (*Haliaeetus leucogaster*), are present at the comparison groups but not at Goose Island. Swamp Harriers (*Circus approximans*), have been reported at all groups except the Investigator group. Nankeen Kestrels (*Falco cenchroides*), occupy all the groups, and Galahs (*Cacatua roseicapilla*), and Rock Parrots (*Neophema petrophila*), are at all groups except the South Neptune Islands. Species of owls have been noted at the Investigator Group, Franklin Island (Boobook), and Goose Island (both Boobook and Barn Owls).

Of the passerine birds the following are present on all groups: Pacific Swallow (*Hirundo tahitica*), Pipit (*Anthus novae-seelandiae*), White-fronted Chat (*Ephthianura albifrons*), and the Singing Honeyeater (*Meliphaga virescens*).

Two species of particular interest are the Red-capped Robin (*Petroica goodenovii*), and Golden Whistler (*Pachycephala pectoralis*). Both these species are reported on Flinders and Pearson Islands (members of the Investigator Group) and on Goose Island. As Goose Island is only a moderate distance from the mainland, they must be occupants here by choice, while their presence on the other two islands is more likely to be by chance, since these are forty miles out to sea. Their presence also indicates that an island habitat suits them. Masked Woodswallows (*Artamus personatus*), have been recorded at Goose and Pearson Islands, and they are known to be migratory. The White-fronted Honeyeater (*Philodonyris albifrons*) has been reported at both Flinders Island and Goose Island and this bird is believed to be nomadic.

Birds such as robins, whistlers, White-fronted Honeyeaters, and Masked Woodswallows, which I would not expect to find amongst boxthorn bushes on a small eight-acre island such as Goose, and which have only occasionally been recorded in such a habitat, have also been recorded on other, more isolated islands. The bird list for the Goose Island Group, therefore, has no real surprises. On studying the lists of the avifauna of other off-shore islands, one could

expect to find the majority of these birds on the Goose Island Group, even though it is close to the shore.

ANNOTATED LIST OF THE BIRDS OF THE GOOSE ISLAND GROUP

Little Penguin *Eudyptula minor*. Common, breeds on Goose Island and Little Goose Island. About eighty burrows in sand on top of Goose Island, and more than 180 burrows in calcinate cliff-face, were counted by members of the Scotch College Expedition in December 1971. In January 1970 and 1971, juvenile birds were found under the door-step of the house, using the wooden door-step for protection. At night, many birds were seen moving about along the well-used tracks through the ground cover.

Black-browed Albatross *Diomedea melanophrys*. Seen in about 1968, off Wardang Island, by C. E. Rix.

Yellow-nosed Albatross *Diomedea chlororhynchos*. Recorded as the previous species.

Sooty Albatross *Phoebastria fusca*. Recorded as the two previous species.

Short-tailed Shearwater *Puffinus tenuirostris*. One dead bird found on White Rocks in May '68. One bird seen flying low over water in August '71.

Australian Pelican *Pelecanus conspicillatus*. An occasional bird seen on the shallow water between Wardang and Goose Islands. Recorded October '66, January '67, August '70, January '71, and May '71.

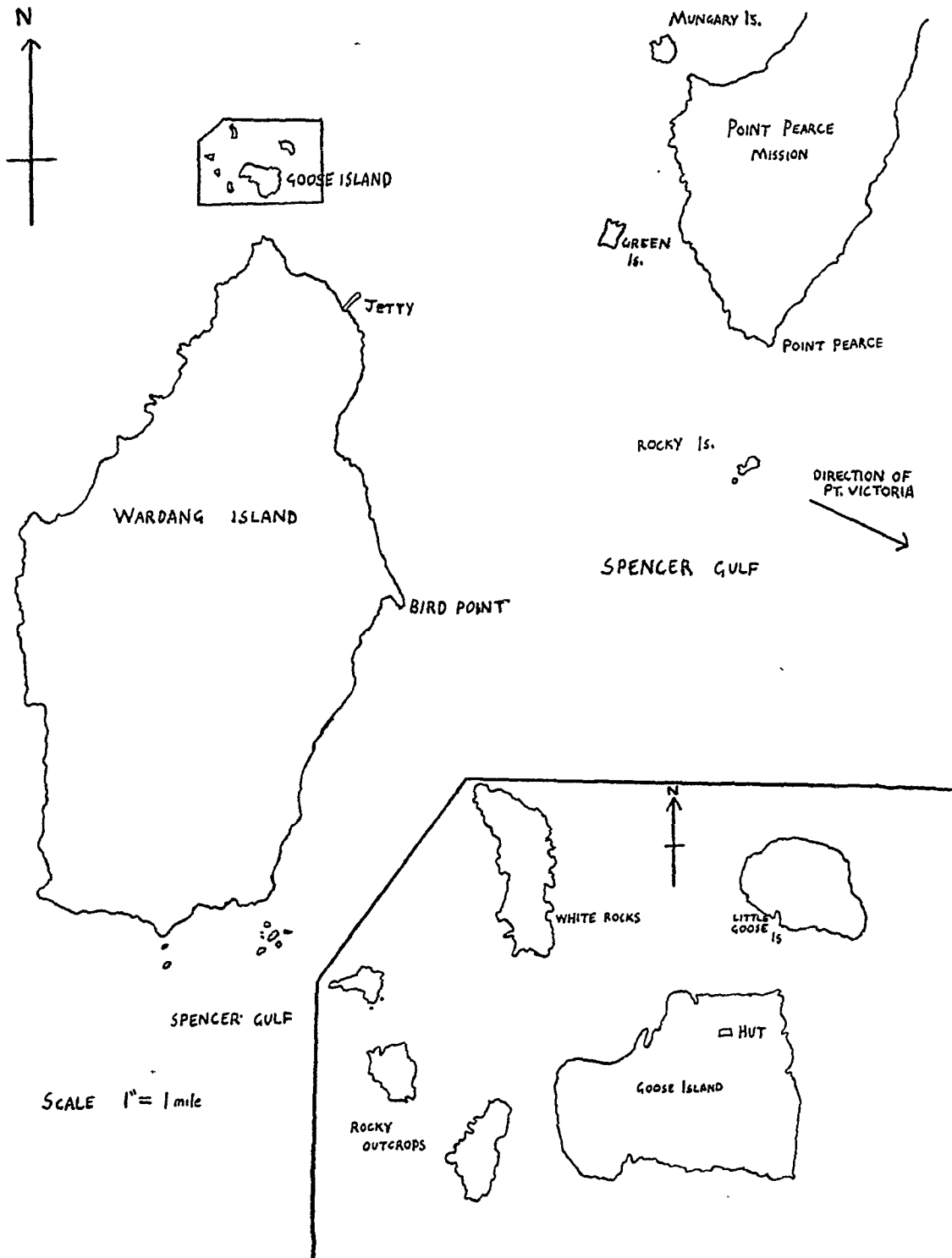
Australian Gannet *Sula bassana*. One bird was seen about 2½ miles east of Goose Island in August '71.

Black Cormorant *Phalacrocorax carbo*. Birds seen flying low across the water on several occasions. Not very common. Recorded January '68, May '68, January '69, and January '70.

Little Black Cormorant *Phalacrocorax sulcirostris*. Uncommon. Several birds seen in May '68 sitting on a channel buoy (about one mile east of Goose Island). Only other record was in August 1971.

Black-faced Cormorant *Phalacrocorax fuscescens*. Very common. Breeds usually in winter and early spring. On White Rocks 500 young birds were banded in 1970, and on Rocky Island 700 young birds have been banded in each of the four years from 1968-1971 (M. Waterman, pers. comm.). Juvenile birds have been banded on Rocky Island as early as May. The nests are of seaweed on

GOOSE ISLAND GROUP, SPENCER GULF.



granite rocks just above high-tide level. Exceptionally high tides and bad weather have occasionally caused damage to the nests closest to the water's edge. Large numbers of dead birds were picked up along the north-eastern coast of Wardang Island in May '71, all birds picked up having broken necks.

Pied Cormorant *Phalacrocorax varius*. Common. Breeds on Little Goose Island. Scotch Colloge groups estimate 50-100 pairs nest on the island each year. There appear to be two distinct nesting sites on Little Goose Island; on the south end (colony A) the nests are on *Nitraria* (spp.) bushes. The height of nests off the ground range from a few inches to about four feet. In April 1970 thirty-six nests with eggs were counted at this site. The other site (colony B) is on the north-east corner of Little Goose Island, and about fifty yards from colony A. These nests were on top of boxthorn bushes. This colony had more nests and generally the nests were higher above the ground than in the other colony. Height above ground ranged from 2-8 feet. In April 1970, forty-one nests were recorded. The majority of these contained young birds, most of them fully fledged.

Of the fish taken by this species of cormorant and found at the nest site the majority were non-commercial, Trumpeter (*Helotes sexlineatus*), Weedy Whiting (*Haletta semifasciatus*), Catfish (*Cnidogobius macrocephalus*), though one 14" flathead (*Platycephalus* sp.) was recorded.

Little Pied Cormorant *Phalacrocorax melanoleucos*. Not very common; only an occasional bird is seen (recorded: October '66, January '67, January '68, January '70, April '70, May '71, August '71).

White-faced Heron *Ardea novaehollandiae*. Occasional bird seen working in the shallows between Goose Island and Little Goose Island, and on the reef between Wardang Island and Goose Island.

Reef Heron *Egretta sacra*. Seen mainly during the summer months on the semi-submerged granite rocks around the island. Very lively, running from rock to rock, unlike *A. novaehollandiae* which preferred wading in the shallow sand flats. Reef herons have been recorded at Goose Island in January '67, '68, '70, May '71, August '71 (one bird was seen on the beach at Pt. Victoria in August '70).

Black Swan *Cygnus atratus*. Vagrant, occasionally small flocks found sheltering in the shallow water over the reef between Goose Island and Wardang Island.

Swamp Harrier *Circus approximans*. Occasionally seen flying over Goose Island. Two birds were seen harrying over heavily grassed fields on Wardang Island, in May '71. (Both birds had white rumps.) The habitat of Wardang Island seems very suitable for this species.

Nankeen Kestrel *Falco cenchroides*. Often seen on top of boxthorn bushes on the island. Suitable nesting sites are available for the bird along the cliffs on the western side of Wardang Island. Several birds have been seen on ledges along these limestone cliffs. In August '70, a female Kestrel was seen on two separate occasions attacking birds caught in a mistnet.

Stubble Quail *Coturnix pectoralis*. One seen in 16" dry grass on Goose Island in May '68. Goose Island is unsuitable for quail (with only small patches of grass), but Wardang Island is ideal, most of the island being grassland.

Australian Bustard *Ardeotis australis*. T. G. Souter reported 20-30 as "nesting in a swampy flat" on Wardang Island on 19 August 1926. See *S. Aust. Orn.*, 1926, 8, 345.

Pied Oystercatcher *Haematopus ostralegus*. Seen quite frequently, usually in small groups of five or six birds. More common during summer, when it is usually seen working the sandy pools of the reef between Goose and Wardang Islands.

Sooty Oystercatcher *Haematopus fuliginosus*. At least one pair has been seen on Goose Island on every trip. Occasionally three or four birds were seen together on the reef between Wardang and Goose; but usually only two birds seen at a time.

Spur-winged Plover *Vanellus miles novaehollandiae*. Only occasionally heard flying over Goose Island at night. However the species has been sighted on Wardang Island in October '66 and May '71 (2 birds).

Grey Plover *Pluvialis squatarola*. A couple seen on sand shoal between Wardang and Goose Islands on 19 January '70 (J. Eckert).

Hooded Dotterel *Charadrius rubricollis*. Common. Small flocks (4-5) seen during winter months, usually on granite rocks near water's edge. In summer months, flocks of thirty, including both adults and juveniles,

were seen on the rocks on Goose Island, and in the sandy shallows of the reef between Goose and Wardang at low tide. In January '68 a nest was discovered on one of the beaches along the west side of Wardang. Two eggs were present, and the nest was two yards above the high water mark.

Red-capped Dotterel *Charadrius alexandrinus*. Occasionally seen along the beaches of Wardang Island. Recorded October '66, January '67.

Turnstone *Arenaria interpres*. Several on sand shoals between Wardang and Goose Islands on 19 January '70 (J. Eckert).

Eastern Curlew *Numenius madagascariensis*. Two birds seen together in April '70, flying low over water, to the east of Goose Island, heading in a northerly direction. No other records.

Red-necked Stint *Calidris ruficollis*. A small flock (thirty) was seen in January '67 on the reef between Wardang and Goose Islands. This is the only time the species has been in the vicinity of the island. However, another flock (about twenty) was seen on the Pt. Victoria beach (7 miles east of Goose) in August '70.

Sharp-tailed Sandpiper *Calidris acuminata*. Few seen in Oct. '66 and Jan. '67 on sand shoals.

Great Knot *Calidris tenuirostris*. Flock of 22 on sand shoals between Wardang and Goose Islands on 19 January '70 (J. Eckert).

Silver Gull *Larus novaehollandiae*. Resident. Very common on the island. Colonies of up to 100 pairs nest each year on Goose Island in spring. In August '70, about 150 nests were recorded by Scotch College of which at least 100 had eggs and/or young. In August '71, approximately 500 nests were counted, of which about 350 were occupied. Several nests were found during the summer months (nests with eggs and/or chicks), on the outskirts of the Crested Tern colony. Presumably the gulls feed on the remains of the fish spilt by the terns. (Ref. See under Barn Owl.)

Pacific Gull *Larus pacificus*. Both adult and immature birds have been seen fairly regularly about Goose Island. Several birds were seen disturbing the Pied Cormorant colony on Little Goose Island in May '68, but on this occasion there was no apparent damage to eggs or fledglings.

Caspian Tern *Hydroprogne tschegrava*. Seen on most trips to the island, but only one

or two birds at a time. A colony was reported to have nested on Rocky Island in early December '70.

Crested Tern *Sterna bergii*. Very common on this group of islands, nesting each summer. About 500 young birds have been banded in each of the five recent summers (M. Waterman, pers. comm.). In January '67, the terns nested on the northern end of Little Goose Island. In the following three years, January '68, '69, '70, the terns nested on the north beach of Goose Island. In January '71, the terns returned to the northern end of Little Goose Island, but in December '71 were nesting on Goose Island again. Various reasons for this movement have been suggested, and perhaps the most likely is to prevent disease. These colonies were unlike those of other terns, in that very few fish were present in them. Of the few fish remains found, all were Mackerel (*Scomber australasicus*) about 6" in length. On windy days the majority of terns leaving the colony would fly out to sea into the wind, returning with a tail wind. Though Crested Terns were often seen washing themselves in the sea near the colony, no birds were seen actually fishing in the water (unlike the Fairy and Caspian Terns).

Fairy Tern *Sterna nereis*. Seen on all trips, but usually only one or two birds. Often seen diving in the shallow water between the various islands. No known record of nesting in the area.

Rock Dove *Columba livia*. Very common. Nests found amongst granite rocks on most occasions. Several hundred birds usually inhabit Goose Island (about 1,200 pigeons were counted by Scotch College December '71 expedition). Though Goose Island offers very little food for them, they are within easy access of the croplands of Yorke Peninsula.

Galah *Cacatua roseicapilla*. Occasionally heard flying over the island at night. Trips to Wardang Island have sometimes yielded a pair of birds. In August 1971, a flock of about twenty galahs was seen flying over the island: also recorded in January '67, April '70, May '71.

Rock-parrot *Neophema petrophila*. Mr. F. Hilton recorded one bird on the island in May '71. This is the only record of the species, which seems surprising since the habitat is very suitable for it.

Barn Owl *Tyto alba*. One seen in August '70, roosting on the sheltered ledges of the limestone cliffs on the eastern side of Goose Island. It was seen for several days, until it flew over the Silver Gulls' rookery on the south-east corner of the island. About ten Silver Gulls immediately attacked the bird, while the rest, alarmed, flew 20-30 feet above the rookery. The Silver Gulls seemed to hit the Owl's wings, and as they drove the bird across the $\frac{3}{4}$ -mile strip of water, it touched the surface of the water about five times. The ten or so gulls continued their attack until the owl reached the safety of Wardang Island.

Two birds were also seen inside the house in May '71. Examination of the owl pellets on the floor of the house showed remains of House Sparrows.

Boobook Owl *Ninox novaeseelandiae*. One was seen in May '68. This was shortly after a heavy mouse (domestic) plague on the islands and the surrounding area. The bird was disturbed on several days, usually from a boxthorn. The owl had no trouble in passing through the thorns to settle inside the protection of the bush. (This perhaps is because owls are mostly feathers, with an actual body size slightly larger than a Starling.) Single birds were also recorded in May '71 and August '71.

Horsefield Bushlark *Mirafra javanica*. Two flushed by tractor from grassland in the centre of Wardang Island on 19 January '70 (J. Eckert).

Pacific Swallow *Hirundo tahitica*. Resident on the islands. The remains of nests were found under the verandah of the shack on Goose Island in January '71. Further suitable nesting sites are available amongst the houses on Wardang Island. The source of mud for the nests is probably on Wardang Island.

Pipit *Anthus novaeseelandiae*. Occasionally seen sitting on top of the boxthorn bushes on Goose Island. The species is very plentiful on the grasslands of Wardang Island.

Black-faced Cuckoo-Shrike *Coracina novaehollandiae*. Recorded on Goose Island in January '67, May '68 and January '70.

White-fronted Chat *Ephthianura albifrons*. Recorded once for Goose Island, and only as a vagrant. Two birds were seen flying south-west, high up over the island, in May '68.

Red-capped Robin *Petroica goodenovii*. In May '68, a male and a female, were seen on the island. In January '68 one female bird was seen. On both occasions the birds were seen taking insects off the ground between clumps of boxthorn.

Golden Whistler *Pachycephala pectoralis*. One male bird was seen in May '68 and one uncoloured bird in April '70. Though this is not enough evidence, the appearance of these two species of flycatcher at the beginning of winter indicates that there might be a similarity between this movement and that occurring on the Mt. Lofty Ranges in the winter, when birds move from the Mt. Lofty Ranges into the eastern suburbs of the Adelaide Plains.

Eastern Silveryeye *Zosterops lateralis halmaturina*. Usually small flocks (5-10) seen flying over the islands. The birds are apparently attracted to the pollen and nectar of the boxthorn flowers, and to the insects which are also attracted. Fifty Silveryeyes were caught with mistnets and banded in August '70. In August '71 the boxthorns were not flowering and no Silveryeyes were seen.

Singing Honeyeater *Meliphaga virescens*. Resident on Goose Island, (about 10-20 birds), although there is no record of the species breeding. Three adult Singing Honeyeaters were caught and banded in August '70 and a further ten adults were banded in May '71.

White-fronted Honeyeater *Phylidonyris albifrons*. One bird was seen in August '70 on Goose Island. The bird had a set territory of about an acre (40+ boxthorns) which it was reluctant to leave, only doing so when driven. Condon refers to the bird as 'nomadic,' and this occurrence appears to be a good example. The bird was only seen catching insects about the boxthorn bushes, and never at the flowers of the boxthorn.

Zebra Finch *Poephila guttata*. A small flock (about six) was recorded in October '66, occupying boxthorn bushes on the south-east corner of Goose Island.

House Sparrow *Passer domesticus*. Common on Goose Island, a resident. In January '71, old nests were noted in boxthorn bushes and amongst the rafters of the roof (see under Barn Owl).

European Starling *Sturnus vulgaris*. Though very few birds seen during the day,

large flocks circle the island at dusk, and roost in the boxthorns at night. Similar activities have been noted at Wright's Island, Encounter Bay.

Masked Woodswallow *Artamus personatus*. A pair seen on Goose Island in October '66. The birds sitting on top of the boxthorns would fly from boxthorn to boxthorn bush, rarely flying above the height of these bushes (8-10 feet).

Australian (White-backed) Magpie *Gymnorhina tibicen*. Occasionally seen on Goose Island. Owing to the shortage of trees on all islands, the only possible nesting sites are the telegraph poles on Wardang Island. Magpies were seen on most trips to Wardang Island. In April '70, six magpies were seen amongst the Pied Cormorant colony, their presence disturbing the adult cormorants but apparently doing no harm to the colony. The magpies stayed amongst the colony for about ten minutes and then flew back to Wardang Island.

Little Raven *Corvus mellori*. Seen on all trips to the islands. The remains of old nests, (probably Raven nests), were found about fifty feet up (five feet from the top) of the limestone cliffs along the western side of Wardang Island. Ravens were often seen disturbing the Pied Cormorant colonies and on many occasions were seen eating eggs out of the nests. Though both Black-faced Cormorants and Crested Terns nest on islands in the group, Ravens were never seen either disturbing the adults or amongst the rookeries of these two species.

ACKNOWLEDGMENTS

I am grateful to Dr. H.J. Eichler of the State Herbarium of South Australia for allowing me to use his notes on the flora of these islands. I would also like to thank Mr. C. C. Butler of Scotch College for his assistance with this paper.

REFERENCES

- Eckert, J. (1970), Birds of the Investigator Group, *S. Aust. Orn.*, 25, 201-5.
 Eckert, J. (1971), Birds of the Franklin Islands and Eyre Island, South Australia, *Emu*, 71(2), 61-64.
 Stirling, I. *et al* (1970), Birds of the South Neptune Islands, *Emu*, 70(4), 189-92.

TABLE

DETERMINATIONS OF COLLECTIONS BY DR. H.J. EICHLER FROM ISLANDS OFF PORT VICTORIA (YORKE PENINSULA) IN APRIL 1970.

The following species were collected from Little Goose Island on 11-4-70:— *Zostera muelleri* Irmisch ex Aschers; *Posidonia australis* Hook.f.; *Lepidium foliosum* Desv; *Polygonum aviculare* L. (s.lat.); *Nitraria schoberi* L.; *Suaeda australis* (R.Br.) Moq.; *Atriplex cinerea* Poid. F; *Atriplex suberecta* Verdoorn.

The following species were collected from Mungary Island on 11-4-70:— *Calocephalus brownii* (Cass.) FvM.; *Euphorbia paralias* L.; *Cakile maritima* Scop.; *Tetragonia amplexicoma* (Miq.) Hook.f.; *Enchylaena tomentosa* R.Br.; *Inula graveolens* (L.) Desf.; *Bassia biflora* (R.Br.) FvM.; *Atriplex paludosa* R.Br.; *Myoporum insulare* R.Br. (sterile, determination uncertain); *Spergularia media* (L.) Presl.; *Arthrocnemum arbuscula* (R.Br.) Moq.; *Frankenia pauciflora* DC.; *Solanum nigrum* L.; *Chenopodium murale* L.; *Lotus australis* Andr.; *Rhagodia baccata* (Labill.) Moq.; *Apium* cf. *prostratum* Labill. ex Vent.; *Salicornia blackiana* Ulbrich; *Atriplex cinerea* Poir. F; *Acacia oswaldii* FvM.; *Kochia oppositifolia* FvM.; *Orobanche australiana* FvM ex Tate; *Pimelea serpyllifolia* R.Br.; *Samolus repens* (Forst.f.) Pers.; *Senecio lautus* Forst.f. ex Willd.

The following species were collected from Goose Island on 12-4-70:— *Lycium ferocissimum* Miers; *Chenopodium murale* L.; *Lepidium foliosum* Desv.; *Atriplex suberecta* Verdoorn; *Atriplex paludosa* R.Br. M.

The following plants were noted but not collected (determination therefore unreliable) from Goose Island:— *Atriplex cinerea*; *Cakile edentula*; *Carpobrotus rossii*; *Chenopodium* sp.; *Enchylaena tomentosa*; *Gasoul crystallinum*; *Lavatera plebeia* (and/or other *Malvaceae*); *Lepidium foliosum*; *Muehlenbeckia gunnii*; *Nitraria schoberi*; *Rhagodia* sp.; *Senecio lautus*; *Sisymbrium* sp.; *Suaeda australis*; *Tetragonia amplexicoma*.